

Brian D. Ogonowsky

Carmen C. Cook

David C. Hsia

Rachel V. Leiterman

February 17, 2005

Mail Stop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Re: Applicant(s): Michael D. Camras, Gerard Harbers, William R. Imler, Matthijs H. Keuper, Paul S. Martin, Douglas W. Pocius, Frank M. Steranka, Helena Ticha, Ladislav Tichy, R. Scott West
Assignee: Lumileds Lighting, U.S., LLC
Title: Light Emitting Devices with Improved Light Extraction Efficiency
Serial No.: 10/633,054
Examiner: Tran, Minh Loan Filed: July 31, 2003
Docket No.: LUM-M-12775 US Group Art Unit: 2826

Dear Sir:

Transmitted herewith are the following documents in the above-identified application:

- (1) Return Receipt Postcard;
- (2) This Transmittal Letter;
- (3) Credit Card Payment Form PTO-2038 (1 page);
- (4) Information Disclosure Statement (2 pages);
- (5) Forms PTO/SB/08A and PTO/SB/08B citing 70 references (5 pages);
- (6) Twenty Three (23) Cited References;
- (7) Copies of the cited US Patent documents are not enclosed as the requirement under 37 CFR 1.98 (a)(2)(i) is waived.

The fee has been calculated as shown below:

Fee to File Information Disclosure Statement (IDS) \$ 180.00

Please charge our credit card (Form PTO-2038 enclosed) in the amount of Total \$ 180.00

Also, charge any additional fees required and credit any overpayment to our Deposit Account No. 502226.

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R. Leiterman 2/17/05
Attorney for Applicant(s) Date

Respectfully submitted,

Rachel V. Leiterman
Attorney for Applicant(s)
Reg. No. 46,868

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Applicant(s): Michael D. Camras, Gerard Harbers, William R. Imler, Matthijs H. Keuper, Paul S. Martin, Douglas W. Pocius, Frank M. Steranka, Helena Ticha, Ladislav Tichy, R. Scott West

Assignee: Lumileds Lighting, U.S., LLC

Title: Light Emitting Devices with Improved Light Extraction Efficiency

Serial No.: 10/633,054 Filing Date: July 31, 2003

Examiner: Tran, Minh Loan Group Art Unit: 2826

Docket No.: LUM-M-12775 US

San Jose, California
February 17, 2005

Mail Stop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT
UNDER CFR § 1.97(c) WITH FEE**

Dear Sir:

Pursuant to 37 C.F.R. § 1.56, § 1.97 and § 1.98, the documents listed on the accompanying forms PTO/SB/08A and PTO/SB/08B are called to the attention of the Examiner for the above patent application. Copies of the cited articles, and foreign patent documents are enclosed. Copies of the cited US Patent documents are not enclosed as the requirement under 37 CFR 1.98 (a)(2)(i) is waived.

Citation of the above documents shall not be construed as:

1. an admission that the documents are necessarily prior art with respect to the instant invention;
2. a representation that a search has been made; or
3. an admission that the information cited herein is, or is considered to be, material to patentability as defined in § 1.56(b).

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Please charge our Credit Card the amount of \$180.00 for the Information Disclosure Statement fee under 37 C.F.R. § 1.17(p) as set forth in the enclosed Form PTO-2038 and transmittal letter.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 502226.

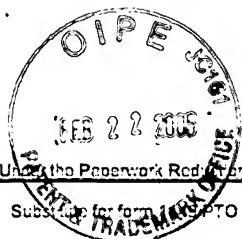
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Rachel V. Leiterman, 3/17/05
Agent for Applicants Date

Respectfully submitted,


Rachel V. Leiterman
Attorney for Applicant(s)
Reg. No. 46,868

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Submitted for form 1615-01 PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1

of 5

Complete if Known

Application Number	10/633,054
Filing Date	July 31, 2003
First Named Inventor	Michael D. Camras
Art Unit	2826
Examiner Name	Tran, Minh Loan
Attorney Docket Number	LUM-M-12775 US

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ²	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
		US- 3,769,536	10-30-1973	Antypas et al.	
		US- 5,502,316	03-26-1996	Kish et al.	
		US- 5,376,580	12-27-1994	Kish et al.	
		US- 5,661,316	08-26-1997	Kish et al.	
		US- 5,779,924	07-14-1998	Krames et al.	
		US- 5,793,062	08-11-1998	Kish Jr. et al.	
		US- 6,015,719	01-18-2000	Kish Jr. et al.	
		US- 5,837,561	11-17-1998	Kish Jr. et al.	
		US- 5,724,376	03-03-1998	Kish Jr. et al.	
		US- 5,698,452	12-16-1997	Goossen	
		US- 5,553,089	09-03-1996	Seki et al.	
		US- 4,675,058	06-23-1987	Plaster	
		US- 5,255,171	10-19-1993	Clark	
		US- 6,429,462 B1	08-06-2002	Shveykin	
		US- 6,483,196	11-19-2002	Wojnarowski et al.	
		US- 6,412,971	07-02-2002	Wojnarowski et al.	
		US- 6,495,862 B1	12-17-2002	Okazaki et al.	
		US- 6,091,020	07-18-2000	Fairbanks et al.	
		US- 5,898,185	04-27-1999	Bojarczuk, Jr. et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		EP 0926744 A2	06-30-1999	Hewlett-Packard		
		JP 09167515-A	06-24-1997	Hewlett-Packard		✓
		JP 09153645	06-10-1997	Toyoda Gosei Co		✓
		WO 01/41219	6-7-2001	Cree Lighting Co		
		WO 01/41225	6-7-2001	Cree Lighting Co		
		WO 00/69000	11-16-2000	RAM Opto Semicond		✓

Examiner Signature	Date Considered

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

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Sheet 2

of 5

Application Number	10/633,054
Filing Date	July 31, 2003
First Named Inventor	Michael D. Camras
Art Unit	2826
Examiner Name	Tran, Minh Loan
Attorney Docket Number	LUM-M-12775 US

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ²			
		US- 5,917,201	06-29-1999	Ming-Jiunn et al.	
		US- 2002/0030194 A1	03-14-20002	Camras et al.	
		US- 4,983,009	01-08-1991	Musk	
		US- 6,214,733 B1	04-10-2001	Sickmiller	
		US- 5,553,089	09-3-1996	Seki et al.	
		US- 2002/0141006	10-3-2002	Pocius et al.	
		US- 6,091,694	7-18-2000	Späth	
		US- 5,925,898	7-20-1999	Späth	
		US- 6,155,699	12-5-2000	Miller et al.	
		US- 5,055,892	10-8-1991	Gardner et al.	
		US- 5,040,868	8-20-1991	Waitl et al.	
		US- 4,391,683	7-5-1983	Buckley et al.	
		US- 5,317,170	5-31-1994	Paoli	
		US- 4,689,652	8-25-1987	Shimada et al.	
		US- 6,075,627	6-13-2000	Feldman et al.	
		US- 5,130,531	7-14-1992	Ito et al.	
		US- 4,988,579	1-29-1991	Tomomura et al.	
		US- 4,815,084	3-21-1989	Scifres et al.	
		US- 6,165,911	12-26-2000	Calveley	

FOREIGN PATENT DOCUMENTS

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		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
		WO 00/70687	11-23-2000	Osram Opto Semicon		<input checked="" type="checkbox"/>
		WO 01/80322	10-25-2001	Osram Opto Semicon		<input checked="" type="checkbox"/>
		WO 02/37578	5-10-2002	Osram Opto Semicon		<input checked="" type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

Examiner Signature	Date Considered
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Sheet 3

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Application Number	10/633,054
Filing Date	July 31, 2003
First Named Inventor	Michael D. Camras
Art Unit	2826
Examiner Name	Tran, Minh Loan
Attorney Docket Number	LUM-M-12775 US

U. S. PATENT DOCUMENTS

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		US- 6,469,785	10-22-2002	Duveneck et al.	
		US- 5,875,205	2-23-1999	Spaeth et al.	
		US- 5,528,057	6-18-1996	Yanagase et al.	
		US- 5,132,430	7-21-1992	Gaudiana et al.	
		US- 5,966,399	10-12-1999	Jiang et al.	
		US- 6,495,862 B1	12-17-2002	Okazaki et al.	
		US- 6,258,699 B1	12-5-2000	Miller et al.	
		US- 2004/0051106 A1	3-18-2004	Baur et al.	
		US- 6,233,267	5-15-2001	Nurmikko et al.	
US-					

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INFORMATION DISCLOSURE
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Sheet 4

of 5

Application Number	10/633,054
Filing Date	July 31, 2003
First Named Inventor	Michael D. Camras
Art Unit	2826
Examiner Name	Tran, Minh Loan
Attorney Docket Number	LUM-M-12775 US

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Chui et al., "High-Efficiency AlGaInP Light-Emitting Diodes", Semiconductor And Semimetals, Vol. 64, Chapter 2, pp. 49-128.	
		Babic et al., "Room-Temperature Continuous-Wave Operation of 1.54-μm Vertical-Cavity Lasers", IEEE Photonics Technology Letters, Vol. 7, No. 11, November 1995, pp. 1225-1227.	
		Chua et al., "Dielectrically-Bonded Long Wavelength Vertical Cavity Laser on GaAs Substrates Using Strain-Compensated Multiple Quantum Wells", IEEE Photonics Technology Letters, Vol. 6, No. 12, December 1994, pp.1400-1402.	
		Fischer et al., "Highly Refractive Glasses to Improve Electroluminescent Diode Efficiencies", Journal of the Electrochemical Society: SOLID STATE SCIENCE, December 1969, pp. 1718-1722.	
		Carr, "Photometric Figures of Merit for Semiconductor Luminescent Sources Operating in Spontaneous Mode", Infrared Physics, 1966, Vol. 6, pp. 1-19.	
		Mary T. Strzelecki et al., "Low Temperature Bonding of Glasses and Glass Ceramics", 8 pages.	
		Robert D. Simpson et al., "Hybrid Glass Structures For Telecommunication Applications", 8 pages.	
		Joseph S. Hayden, "Passive and Active Characterization of Hybrid Glass Substrates for Telecommunication Applications, 8 pages.	
		J.W. OSENBACH, et al., "Low Cost/High Volume Laser Modules Using Silicon Optical Bench Technology, 1998 Electronic Components and Technology Conference, p. 581.	
		"Aluminum Oxide, Al ₂ O ₃ For Optical Coating, CERAC, Inc. Technical Publications, pp. 1-4.	

Examiner Signature	Date Considered
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Substitute for form 1449: PTO		Complete if Known	
		Application Number	10/633,054
		Filing Date	July 31, 2003
		First Named Inventor	Michael D. Camras
		Art Unit	2826
		Examiner Name	Tran, Minh Loan
Sheet	5	of	5
		Attorney Docket Number	
		LUM-M-12775 US	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		"Bulk Measurement", Sairon Technology, Inc., pp. 1-3.	
		THOMAS R. ANTHONY, "Dielectric isolation of silicon by anodic bonding", J. Appl. Phys. Vol. 58, No. 3, 1 August 1985, pp. 1240-1247.	
		JOSHUA ISRAELSOHN, "Switching the light fantastic", Techtrends", EDN, October 26, 2000, 10 pages.	
		BORIS A. MATVEEV et al., "III-V Optically Pumped Mid-IR LEDs," Light-Emitting Diodes: Research, Manufacturing, and Applications, V.H. Walter Yao, E. Fred Schubert Editors, Proceedings of SPIE Vol. 4278 (2001), pp. 189-196.	

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